UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	37B.P61
First Named Inventor or Application Identifier	
T. TSUNENARI	
Express Mail Label No.	

APPLICATION ELEMENTS
See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO:
Commissioner for Patents
Box Patent Application
Washington, DC 20231

1. [ ] Fee Transmittal Form
(Submit an original, and a duplicate for fee processing)

2. [X] Specification   *Total Pages* | 26 |

3. [X] Drawing(s) *(35 USC 113)*   *Total Sheets* | 6 |

4. [X] Oath or Declaration   *Total Pages* | 2 |

    a. [X] Newly executed (original or copy)

    b. [ ] Unexecuted for information purposes

    c. [ ] Copy from a prior application (37 CFR 1.63(d))
      (for continuation/divisional with Box 17 completed)
      [Note Box 5 below]

      i. [ ] <u>DELETION OF INVENTOR(S)</u>
        Signed Statement attached deleting inventor(s)
        named in the prior application, see 37 CFR
        1.63(d)(2) and 1.33(b).

5. [ ] Incorporation By Reference *(useable if Box 4c is checked)*
The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4c, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein

6. [ ] Microfiche Computer Program *(Appendix)*

7. Nucleotide and/or Amino Acid Sequence Submission
(if applicable, all necessary)

    a. [ ] Computer Readable Copy

    b. [ ] Paper Copy (identical to computer copy)

    c. [ ] Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

8. [X] Assignment Papers (cover sheet & document(s))

9. [ ] 37 CFR 3.73(b) Statement
(when there is an assignee)   [ ] Power of Attorney

10. [ ] English Translation Document *(if applicable)*

11. [ ] Information Disclosure Statement (IDS)/PTO-1449   [ ] Copies of IDS Citations

12. [ ] Preliminary Amendment

13. [X] Return Receipt Postcard (MPEP 503)
(Should be specifically itemized)

14. [ ] Small Entity Statement(s)   [ ] Statement filed in prior application Status still proper and desired

15. [ ] Certified Copy of Priority Document(s)
(if foreign priority is claimed)

16. [ ] Other: _____

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17. If a CONTINUING APPLICATION, *check appropriate box and supply the requisite information:*

[ ] Continuation   [ ] Divisional   [ ] Continuation-in-part (CIP)   of prior application No. ___/_____

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18. CORRESPONDENCE ADDRESS

[X] Customer Number or Bar Code Label   05514
(Insert Customer No. or Attach bar code label here)   or   [ ] Correspondence address below

NAME	
Address	

City		State		Zip Code	
Country		Telephone		Fax	

Page 1 of 2

CLAIMS	(1) FOR	(2) NUMBER FILED	(3) NUMBER EXTRA	(4) RATE	(5) CALCULATIONS
	TOTAL CLAIMS (37 CFR 1.16(c))	27-20 =	7	X $ 18.00 =	$126.00
	INDEPENDENT CLAIMS (37 CFR 1.16(b))	5-3 =	2	X $ 78.00 =	$156.00
	MULTIPLE DEPENDENT CLAIMS (if applicable) (37 CFR 1 16(d))			$260.00 =	$ 0.00
				BASIC FEE (37 CFR 1.16(a))	$690.00
				Total of above Calculations =	$972.00
	Reduction by 50% for filing by small entity (Note 37 CFR 1.9, 1.27, 1.28).				
				TOTAL =	$972.00

19.   Small entity status

    a.   ☐   A Small entity statement is enclosed

    b.   ☐   A small entity statement was filed in the prior nonprovisional application and such status is still proper and desired.

    c.   ☐   Is no longer claimed.
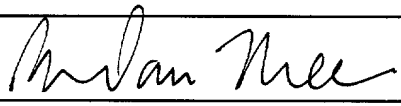
20.   ☒   A check in the amount of $ 972.00 to cover the filing fee is enclosed.

21.   ☒   A check in the amount of $ 40.00 to cover the recordal fee is enclosed.

22.   The Commissioner is hereby authorized to credit overpayments or charge the following fees to Deposit Account No. 06-1205:

    a.   ☐   Fees required under 37 CFR 1.16.

    b.   ☐   Fees required under 37 CFR 1.17.

    c.   ☐   Fees required under 37 CFR 1.18.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED	
NAME	Brendan Mee (Reg. No. 43,193)
SIGNATURE	*(signature)*
DATE	July 7, 2000

NY_MAIN 94540 v 1

- 1 -

TITLE

SYSTEM AND METHODS
TO EFFECT RETURN OF A CONSUMER PRODUCT

5

BACKGROUND OF THE INVENTION

Field of the Invention

10 The present invention is directed to a system and
method that utilize computers and a network to effect
the return of consumer products. In one preferred
embodiment, the invention is directed to a system and
method for facilitating the return of spent, recyclable
15 products from a consumer to a destination preselected
by the manufacturer for recycling.

Description of the Related Art

There are many circumstances in which it is desirable
to move a product from a consumer back to a

5   manufacturer, for a variety of reasons. In the field
of laser toner cartridges, for example, it is desirable
to move a spent cartridge from the consumer back to the
manufacturer, so that the manufacturer may recycle the
cartridge. Such a system allows the manufacturer to

10 re-use some portions of the cartridge in order to
fabricate new cartridges, and to reduce other portions
to scrap materials which may also be re-used.
Recycling a cartridge in this manner allows a
manufacturer to fabricate new cartridges more cheaply,

15 and also has very positive effects on the environment.

U.S. Patent No. 5,965,858 to Suzuki, et al. proposes a
manufacturer article recycling program. In that
patent, articles are manufactured at a manufacturing

20 factory, delivered to stores, and purchased at stores
by customers. After the customer has used the article
for a given period of time, it is brought to a local
deposit place (or to the store, which then sends it to
the deposit place), where it is classified on the basis

25 of category or class, and then sent to an appropriate
recycling facility. In Suzuki et al., however, there
is nothing which addresses the particulars of how the
article is moved from the customer to the deposit
place.

30

One conventional method of effecting the delivery of
consumer product for recycle is to include with a newly
purchased product a pre-authorized shipping label.

Such a label is typically pre-printed with a pre-selected destination (such as the manufacturer's recycling facility), and is pre-authorized by a specific carrier (such as, for example, United Parcel

5   Service). When a consumer has exhausted the product and is ready to return it, the consumer locates the label that came with the product, locates a box in which to put the product, affixes the label and ships the product in the box with the label affixed.

10

The above-described method is a generally good one, and has been used to effect extremely successful recycling programs. Nonetheless, it suffers from several significant drawbacks, most of which stem from the fact

15   that it basically a static, non-adaptable system which cannot be easily modified as circumstances change. For example, if the label included in the original packaging is lost, the consumer cannot readily effect the return of the product.

20

Another drawback associated with the conventional method is that the manufacturer must select the destination of the consumer product return when the product is initially packaged, and cannot change the

25   destination thereafter. And because the selection must be made at the time the product is packed, before the manufacturer knows in whose hand the product will ultimately wind up, it cannot be tailored to a specific consumer. Thus, the manufacturer cannot direct the

30   consumer product to be returned to a destination closer to the consumer, thereby lowering shipping costs.

Another drawback of the conventional method for handling product returns is that the method offers no mode for interaction with the consumer during the return process. In fact, a product manufacturer

5   typically cannot tell where a returned package originated from, or whether the returned package contains the product at all. Indeed, unscrupulous individuals have been known to abuse the product return system by affixing a pre-authorized label to a non-

10   authorized item, sometimes delivering an unwanted and bulky item to the product manufacturer's return destination.

Moreover, packing a pre-authorized shipping label with

15   a consumer product locks in the manufacturer to the carrier service indicated on the shipping label. This reduces the ability of the manufacturer to negotiate among potential carrier services to obtain the lowest cost.

20

There is a need, therefore, for a system and method of effecting the return of a consumer product that takes an entirely fresh approach, and overcomes the drawbacks associated with the conventional methods discussed

25   above.

SUMMARY OF THE INVENTION

It is an object of the invention to provide a system

30   and method for effecting consumer product returns which overcome the drawbacks and disadvantages associated with the prior art methods.

In a first embodiment, the invention is embodied as a computer, located on a network, for effecting the return of a consumer product, the computer being adapted to: (a) receive from another computer located on the network consumer information which includes an identification of the consumer product to be returned; and (b) transmit to the other computer shipping label data which includes an identification of a destination for the consumer product, selected in accordance with the consumer information, and an identification of a carrier service.

In particularly preferred embodiments, the above-described computer adapted to perform functions (a) and (b) is the manufacturer's server computer, the other computer is a client computer operable by a consumer, and the network linking the two computers is the Internet.

The computer may be advantageously used to effect the return of recyclable materials, such as for example spent laser printer toner cartridges.

In some embodiments of the present invention, a manufacturer's computer performs a method comprising the steps of (a) receiving consumer information from a first computer over a network, wherein said consumer information includes product type information; (b) storing the consumer information in a database server; (c) selecting a destination for said consumer product and a carrier in accordance with the consumer information; and (d) transmitting shipping label data

including said destination and carrier service to a
client computer.

In some embodiments, the method includes a step of
5   comparing consumer information entered at the
manufacturer's server computer with consumer
information stored in one or more databases.

The invention is also embodied as a first computer
10 operable by a consumer and operatively connected to a
printer. The first computer is located on a network
linking it to a second computer. The first computer is
adapted to: (a) transmit to the second computer
consumer information including at least product type
15 information; (b) receive from the second computer
shipping label data including an identification of a
destination for the consumer product, selected in
accordance with the consumer information, and an
identification of a carrier service; and (c) transmit
20 shipping label data to the printer to cause a shipping
label to be printed.

The invention may also be embodied as a system for
effecting the return of a consumer product, which
25 includes (a) a first computer; (b) a network linking
the first computer to a second computer, the second
computer adapted to receive consumer information from
the first computer over the network and to transmit
shipping label data to the first computer; (c) a
30 printer operatively connected to the first computer and
adapted to print a shipping label; and (d) a carrier
service adapted to deliver the consumer product to a
destination indicated in said shipping label.

The invention is also embodied as computer code, running on a computer located on a network, for effecting the return of a consumer product, including:
(a) code for receiving from another computer located on

5 the network consumer information which includes an identification of the consumer product to be returned; (b) code for processing the consumer information and generating shipping label data; and (c) code for transmitting to the other computer shipping label data

10 which includes an identification of a destination for the consumer product, selected in accordance with the consumer information, and an identification of a carrier service.

15   BRIEF DESCRIPTION OF THE DRAWINGS

The foregoing and other objects, aspects and advantages of the present invention will be better understood from the following detailed description of preferred

20 embodiments of the invention with reference of the drawings, wherein:

Figure 1 is a block diagram depicting elements of a system embodied according to the invention.

25

Figure 2 is a flow chart depicting operation of the system according to preferred embodiments of the invention.

30 Figure 2A is a continuation of the flow chart of Figure 2 from point ①.

Figures 3, 4, 5, 6, 7 and 8 are exemplary Web pages served by a Web server during operation of the system according to an embodiment of the invention.

5   DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

"Consumer" means generally any person or entity who desires to return a consumer product. In preferred embodiments, the consumer is an individual or entity
10 actually buying and using the consumer product to be returned, and about whom a consumer profile can be maintained. However, in the broadest embodiment, a consumer is simply an entity effecting the consumer product return.
15

"Manufacturer" means the person or entity organizing and authorizing the consumer product return. In preferred embodiments, the entity organizing and authorizing the consumer product return is, in fact,
20 the entity which actually manufactured the product, and uses the system of the present invention to track product usage information and consumer information, as will be discussed in greater detail below. Nevertheless, this is not required of the system and
25 method as broadly disclosed herein.

"Consumer product" or sometimes simply "product" means any product under the sun. In one preferred embodiment, the consumer product to be returned is
30 recyclable product, such as for example a recyclable laser printer toner cartridge. However, the system and methods for effecting product returns according to the

invention can be adapted to the return of any consumer product.

"Computer" may refer to a single computer or to a
5   system of interacting computers. Generally speaking, a
computer is a combination of a hardware system, a
software operating system and perhaps one or more
software application programs. Examples of computers
include, without limitation, IBM-type personal
10 computers (PCs) having an operating system such as DOS,
Windows, OX/2 or Linux; Macintosh computers; hardware
having a JAVA-OS operating system; graphical work
stations, such as Sun Microsystems and Silicon Graphics
Workstations having a UNIX operating system;
15 PalmPilots; and PilotPCs.

"Network" means a connection between any two or more
computers, which permits the transmission of data. An
example of a network is the Internet.
20

"User identification information" is consumer
information that uniquely describes a consumer and
includes, without limitation, user ID and password
information.
25

"Web page" means any documents written in mark-up
language including, but not limited to, HTML (hypertext
mark-up language) or VRML (virtual reality modeling
language), dynamic HTML, XML (extended mark-up
30 language) or related computer languages thereof, as
well as to any collection of such documents reachable
through one specific Internet address or at one

specific Web site, or any document obtainable through a
particular URL (Uniform Resource Locator).

"Web site" means at least one Web page, and preferably

5   a plurality of Web pages, virtually connected to form a
coherent group.

"Web browser" means any software program which can
display text, graphics, or both, from Web pages on Web

10 sites. Examples of Web browsers include, without
limitation, Netscape Navigator and Microsoft Internet
Explorer.

"Web server" refers to a computer or other electronic

15 device which is capable of serving at least one Web
page to a Web browser.

The phrase "display a Web page" includes all actions
necessary to render at least a portion of the

20 information on the Web page available to the computer
user. As such, the phrase includes, but is not limited
to, the static visual display of static graphical
information, the audible production of audio
information, the animated visual display of animation

25 and the visual display of video stream data.

For the present invention, a software application could
be written in substantially any suitable programming
language, which could easily be selected by one of

30 ordinary skill in the art. The programming language
chosen should be compatible with the computer by which
the software application is executed, and in particular
with the operating system of that computer. Examples

of suitable programming languages include, but are not limited to, C, C++, CGI, Java and Java Scripts. Furthermore, the functions of the present invention, when described as a series of steps for a method, could

5 be implemented as a series of software instructions for being operated by a data processor, such that the present invention could be implemented as software, firmware or hardware, or a combination thereof.

10 An example of the system of the present invention is depicted schematically in Figure 1. As shown, the system includes Web server 110 (such as a manufacturer's Web server) operably connected to a database server 150 and a network 120. The network 120

15 may be, for example, the Internet. Also connected to the network 120 is a client computer 100 (such as a consumer's client computer), which in turn is connected to a printer (preferably a laser printer) 160 that can print a shipping label 170, in a manner that will be

20 discussed in greater detail below.

Preferably, the database server 150 comprises a relational database management system, in which stored information is arranged in tables of rows and columns,

25 related to one another by predetermined functions, and can be accessed by database query protocols, such as the Structural Query Language (SQL).

It will be readily appreciated that the schematic of

30 Figure 1 is exemplary only, and that numerous variations are plainly possible. For example, each of the computers 100 and 110 may be connected to their own network, which networks in turn are connected to

network 120. The system may also be implemented with multiple client computers and multiple Web servers. Other variations exist as well.

5   Client computer 100 preferably includes communications hardware and an operating system with graphical user interface (GUI) functionality to allow for interface with the Internet, and is preferably equipped with graphical World Wide Web (Web) browser software, such

10   as Netscape Navigator or Microsoft Internet Explorer, loaded thereon and operable to read and send Hypertext Markup Language (HTML) forms from and to a Hypertext Transport Protocol (HTTP) server on the Web. Preferably, client computer 100 is operable to act as a

15   virtual machine to run Java applets, or the like, downloaded by the browser from the server. Specifically, the client computer 100 has to be capable of delivering consumer information to the manufacturer's server computer, as will be discussed

20   below. The Web server 110 preferably includes hardware, HTTP compliant software, an operating system and common gateway interface (CGI) software for interfacing with input queries and sources of data. The Web server 110 receives consumer information and

25   stores the consumer information in database server 150.

Turning to the operation of the invention according to a preferred embodiment, reference is made to Figure 2. As shown in Figure 2, a consumer who has decided to

30   return a product initially connects to the Web server 110 (step S210), to retrieve and display a Web page, such as for example by inputting the URL of such a Web page into the Web browser of the client computer 100.

This action, routine in today's economy, is commonly
referred to as "visiting the Web site" of the
manufacturer. The URL may have been provided to the
consumer in or on the original packaging of the goods,
5   along with instructions to retrieve Web page when it is
desired to return the product.

An exemplary Web page 30 that Web server 110 might
serve to client computer 100 upon initial connection is
10   illustrated in Fig. 3. As is shown, this Web page asks
whether the customer is a first-time user of the
program or has used the program before (Step S220).
Two buttons 31 and 32 are provided for customer
response. If the consumer is a first time user, the
15   Web server will serve a Web page which allows the
consumer to register with the program, such as the
exemplary Web page 40 illustrated in Figure 4. This
Web page is a CGI form that includes fields which allow
(or require) the consumer to input various data, and a
20   submit button 41 to transmit that information to the
Web server. Once the information is received, it is
stored in the database server 150. The specific fields
illustrated in Fig. 4 are, of course, only exemplary
and other fields may be used in addition or in lieu of
25   all or some of them.

The consumer's name and address may be advantageously
used to direct the consumer product to the facility
closest to the consumer. For example, a particular
30   manufacturer administering a recycling program may
elect to establish two recycling facilities, one on the
East coast and one on the West coast of the United
States. The manufacturer may require the location of

the consumer, so that it may direct the product to the
one of the two facilities that is closest to the
consumer.

5   Upon submitting the form of Web page 40, the Web server
serves a Web page, such as the Web page 50 of Fig. 5,
that allows the consumer to specify a user
identification ("user ID") and password. Once those
data are received by the Web server, the Web server

10   stores them in the database server 150, and serves the
client computer 100 a Web page confirming the user ID
that the consumer specified (step S222), as illustrated
in Fig. 6.

15   Once a user ID has been established by the Web server,
the consumer does not have to undertake registration
steps S221 and S223 to effect a product return. Rather,
on second and subsequent visits, the Web server serves
a Web page that provides a form for inputting the

20   already established user ID and password (step S222),
such as Web page 70 illustrated in Fig. 7.

In an alternate embodiment, the user ID and password
information is not entered manually by the consumer,

25   but is rather provided automatically via a cookie file
placed on the client computer 100 by the Web server
during the initial registration process.

In any event, upon receipt by the Web server of the

30   user ID and password information, the Web server
performs a validity check (Step S224) to determine
whether the user ID is valid. More particularly, the
Web server compares the information received from the

client computer with consumer information stored in database server 150. Thus, if a given user ID does not exist, or does not correspond with given consumer name information, for example, the consumer may be re-served

5 the Web page 70 to re-enter user identification.

Following a successful validity check (or following a first-time user clicking the continue button 61 of Web page 60), the client computer 100 is served in step

10 S230 with a Web page 80 shown in Fig. 8, which provides a form for inputting data indicating information about the product to be returned. Such information typically would include information indicating what type of product is to be returned) and may be a model type or a

15 textual description of the product. This information may be entered by the user via a keyboard or the like, or alternatively may be entered by the user selecting a product from a list of available products, provided in the form of a pull-down menu or the like. The entered

20 product type information is subjected to the same type of validity check as is performed in connection with the validation of user identification information in step S224, i.e. the entered product is compared with a list of products maintained in database server 150, to

25 determine if it is a valid product. If it is not a valid product, a suitable message is returned to the client computer 100.

If the product type is valid, a destination is

30 determined and shipping label data is transmitted, as will be set forth below. In a preferred embodiment of the present invention, the product identification information includes not only information indicating

the generic type of the product (<u>e.g.</u> "laser toner
cartridge"), but also an indication of the serial
number of the specific product. In such a case, the
serial number, too, is subjected to a validity check,

5   by comparing it to serial numbers on a list of serial
numbers maintained in the database server 150. In a
preferred embodiment of the present invention, the Web
server 110, after receiving product information from
the client computer 100, will serve a Web page that

10 provides a form for inputting information about the
consumer's use of the product. Such use information
might include such things as, for example, whether the
consumer is using the product in a home or office
setting; how much the consumer is using the product;

15 how much the consumer paid for the product; where the
consumer purchased or learned of the product; and
myriad other data of interest to the manufacturer.
This information, once received by the Web server, is
stored in the database server 150. Such information

20 allows the database server to maintain rich information
not only with respect to a particular customer, but
also with respect to the particular products that are
returned.

25 In another preferred embodiment of the present
invention, the consumer product is provided with a
smart chip which collects information about the product
during use. If the product is a printer cartridge, the
information can include the number of prints made, the

30 type of printer the cartridge is used in, or any other
information about the product that a smart chip can be
programmed to record. This information, once retrieved
from the returned product, can be added to the database

server 150. Product information gleaned from a smart
chip may be associated in the database server 150 with
a particular consumer through a product serial number,
for example. In this manner, the manufacturer can even
5   more precisely monitor the life cycle of the product.

Once product information has been entered and received
by the Web server, the Web server selects a product
return destination for the consumer product, and a
10 carrier service that will handle the transport (step
S240). Generally, the Web server 110 will determine
the destination of the product in accordance with the
product type sending the product to a facility at which
it may be processed. For example, in the case of a
15 laser toner cartridge being returned for recycling, a
destination will be chosen at which the recycling can
be done. The destination may be further refined in
accordance with the location of the consumer, selecting
whatever suitable destination is closest to the
20 consumer in order to minimize shipping costs. The
database server maintains a list of all available
destinations, their locations and their processing
capabilities, and is accessed by the Web server 110 in
determining the destination for a particular product.
25

Also maintained in the database server 150 is a list of
all carrier services, and their charges for specified
transports. The Web server 110 accesses this
information as well, to determine which carrier service
30 is the most economical, given the nature of the product
to be returned (such as its weight and dimensions) and
the pick-up and delivery points. Preferably, the

carrier server 150 is updated periodically, to reflect changes in rates, newly negotiated contracts, etc.

Once a destination and a carrier service are selected,
5   the Web server generates shipping label data (step S250). The shipping label data include data sufficient for the client computer 100 to direct a printer 160 to print a shipping label that includes an identification of the destination and of the carrier service selected.
10 The shipping label data also include data necessary to print an actualization code on the label, indicating that the shipping of the package on which the label is affixed has been pre-authorized and that the receiver (<u>i.e.</u> the manufacturer) will pay the shipping costs.
15 The shipping label data also preferably, includes data necessary to print the sender's address. Such an enhancement provides a significant deterrent to abuse of the system.

20 The shipping label data is transmitted from the Web server 150 (step S260) and received by the client computer 100 (step S270) with the client computer operably connected to a printer 160 adapted to print shipping labels (step S280). In a preferred
25 embodiment, the shipping label data is transmitted and received in a format such that the consumer can cause labels to be printed without installing additional software on the client computer. In any event, the product to be returned is placed into appropriate
30 packaging by the consumer, and the printed label is affixed thereto.

The delivery step (S290), is effected by a carrier
service, such as for example United Parcel Service,
Federal Express or the like. Typically, the carrier
service will pick up a package from the consumer, and
5   deliver the package to the destination printed on the
shipping label.

In practice, the carrier service typically contracts
with the manufacturer to permit the transmission of the
10   shipping label data, because it is the carrier service
who will accept the authorization on the shipping
label. Thus the carrier service itself is generally
adapted to receive and transmit authorization
information over a network.
15

In another independent embodiment, the client computer
is located at a receiving site, rather than at the
consumers' home or facility. A receiving site can be a
location where disparate consumers drop off products to
20   be returned. In this embodiment, a receiving site
obtains a user ID and password in the same manner as
the consumer obtained this information in the preceding
embodiments. However, as part of the consumer
information transmitted from the client computer to the
25   manufacturer's Web .server, an additional piece of
consumer information is required: "number of boxes
requested."

An appropriate product destination is selected based
30   upon product type and consumer information as in the
preceding embodiments. However, instead of
transmitting shipping label data to the client computer
as in the preceding embodiments, empty boxes to which

shipping labels can be affixed are mailed to the
receiving site. Transmitting and receiving of shipping
label data and printing of shipping labels proceeds as
in the above-described embodiments. Several products
5   are loaded into the boxes and the boxes are delivered
to the selected destination by the carrier service.

The foregoing detailed description is intended to be
illustrative and not limiting of the invention, which
10 is defined by the appended claims. For example,
although much of the above description is with respect
to a recycling program, the systems and methods of the
present invention may be used to effect product return
for any reason, such as product service, product
15 repair, customer dissatisfaction, etc. Various other
modifications are possible as well.

WE CLAIM:

1. A computer, located on a network, for effecting the return of a consumer product, the
5   computer being adapted to:

        (a) receive from another computer located on the network consumer information which includes an identification of the consumer product to be returned; and

10   (b) transmit to the other computer shipping label data which includes an identification of a destination for the consumer product, selected in accordance with the consumer information, and an identification of a carrier service.

15

     2.   The computer of claim 1, adapted to store consumer information received from the other computer in a database server.

20   3.   The computer of claim 2, wherein the consumer information includes product serial number data.

     4.   The computer of claim 2, further adapted to receive as components of consumer information consumer
25   name and address information.

     5.   The computer of claim 4, further adapted to transmit user identification information to the other computer.

30

     6.   The computer of claim 1 wherein said computer is a Web server, the other computer is a client computer, and said network is the Internet.

7. The computer of claim 1, wherein the consumer product is recyclable and the destination is a recycling facility.

8. The computer of claim 1, further adapted to receive, as components of the consumer information, information concerning use of the consumer product.

9. The computer of claim 7, wherein the consumer product is a laser printer toner cartridge, and wherein the other computer is operably connected to a laser printer.

10. A method of effecting consumer product returns over a network comprising:

    (a) receiving consumer information from a first computer over a network, said consumer information including product type information;

    (b) storing the consumer information in a database server;

    (c) selecting a destination for said consumer product and carrier service in accordance with the consumer information; and

    (d) transmitting shipping label data including an identification of the destination and an identification of the carrier service to said first computer.

11. The method of claim 10, wherein said consumer information includes consumer name and address information.

12. The method of claim 10, further comprising a step of transmitting user identification information to said first computer.

13. The method of claim 10, wherein said shipping label data transmitted to said first computer is processed by said first computer to print a shipping label at a printer operatively connected to said first

5　computer.

14. The method of claim 10 further comprising a step of transmitting to the other computer a cookie file containing user identification information.

10

15. A first computer operatively connected to a printer, said first computer located on a network linking said first computer with a second computer, and being adapted to:

15　　　　(a) transmit to a second computer consumer information including at least product type information;

　　　　(b) receive from the second computer shipping label data including an identification of a destination

20　for the consumer product, selected in accordance with the consumer information, and an identification of a carrier service; and

　　　　(c) transmit shipping label data to the printer to cause the printer print a shipping label.

25

16. A system for effecting return of a consumer product, comprising:

　　　　(a) a first computer;

　　　　(b) a network linking the first computer to a

30　second computer, the second computer adapted to receive consumer information from said first computer over the network and to transmit shipping label data to said first computer;

　　　　(c) a printer operatively connected to said

35　first computer adapted to print a shipping label; and

(d) a carrier service adapted to deliver the consumer product to a destination indicated by said shipping label.

17. The system of claim 16, further comprising a consumer information database server adapted to store consumer information.

18. The system of claim 16, wherein consumer information includes a product serial number.

19. The system of claim 16, wherein said consumer product is a printer cartridge and said printer is adapted to utilize said printer cartridge.

20. The system of claim 16, wherein said printer cartridge is a recyclable laser printer toner cartridge.

21. The system of claim 20, wherein said printer cartridge includes a chip adapted to collect product information.

22. The system of claim 16, wherein the delivery address included in the shipping label data is selected from a finite list by the second computer based on the consumer information.

23. Computer code, running on a computer located on a network, for effecting the return of a consumer product, including:

(a) code for receiving from another computer located on the network consumer information which includes an identification of the consumer product to be returned;

(b) code for processing the consumer
information and generating shipping label data; and
(c) code for transmitting to the other
computer shipping label data which includes an
5   identification of a destination for the consumer
product, selected in accordance with the consumer
information, and an identification of a carrier
service.

10   24. The computer code of claim 23, further
including code for storing consumer information
received from the other computer in a database server.

        25. The computer code of claim 24, wherein the
15 consumer information includes product serial number
data.

        26. The computer code of claim 23, wherein code
for processing includes code for generating shipping
20 label data using consumer name and address information
as inputs.

        27. The computer code of claim 23, wherein code
for transmitting includes code for transmitting user
25 identification and password information to the other
computer.

ABSTRACT

A system and method are disclosed that utilize computers and a network to effect the return of

5   consumer products. In one preferred embodiment, the invention is directed to a system and method for facilitating the return of spent, recyclable products from a consumer to a destination preselected by the manufacturer for recycling. The system uses a

10   computer, located on a network, and adapted to: (a) receive from another computer located on the network consumer information which includes an identification of the consumer product to be returned; and (b) transmit to the other computer shipping label data

15   which includes an identification of a destination for the consumer product, selected in accordance with the consumer information, and an identification of a carrier service.
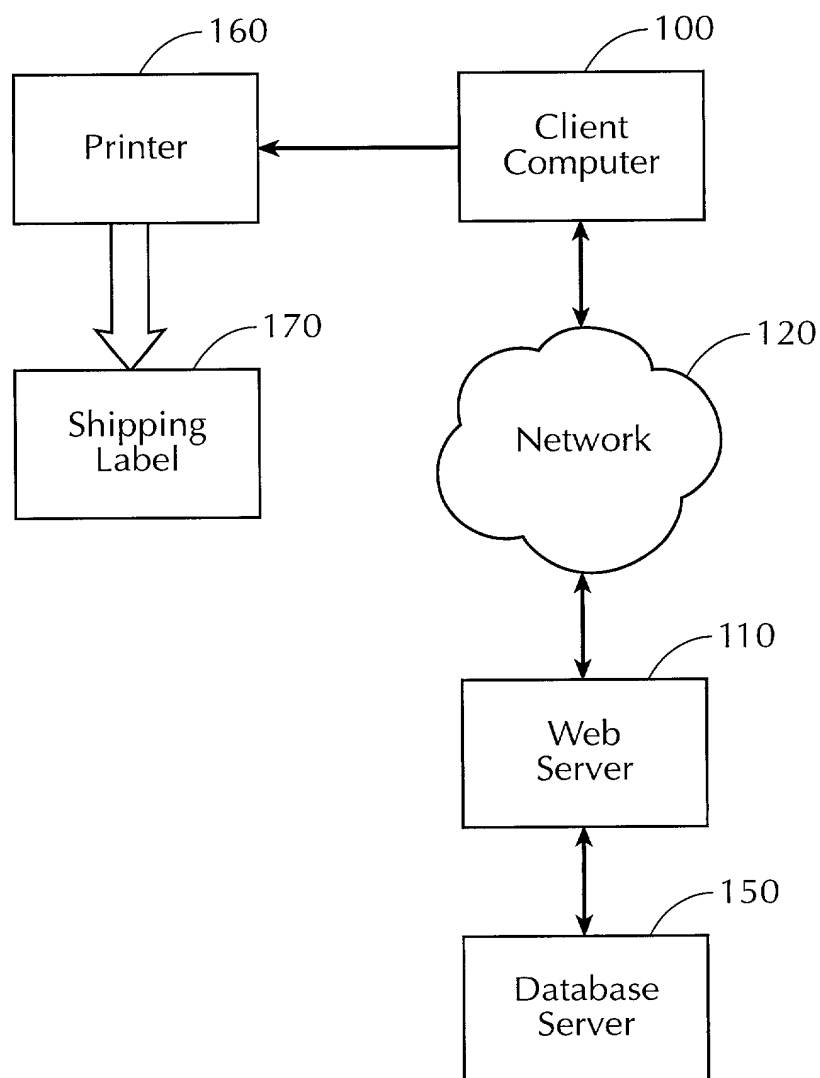
20

FIG. 1

```
┌──────────────┐                    ┌──────────────┐
│   Printer    │◀───────────────────│    Client    │
│              │                    │   Computer   │
└──────┬───────┘                    └──────┬───────┘
       │ ⌐160                              │ ⌐100
       │                                   │
       ▼                                   ▼
┌──────────────┐                    ┌──────────────┐
│   Shipping   │                    │   Network    │
│    Label     │                    │              │
└──────────────┘                    └──────┬───────┘
        ⌐170                               │ ⌐120
                                           │
                                           ▼
                                    ┌──────────────┐
                                    │     Web      │
                                    │    Server    │
                                    └──────┬───────┘
                                           │ ⌐110
                                           │
                                           ▼
                                    ┌──────────────┐
                                    │   Database   │
                                    │    Server    │
                                    └──────────────┘
                                            ⌐150
```
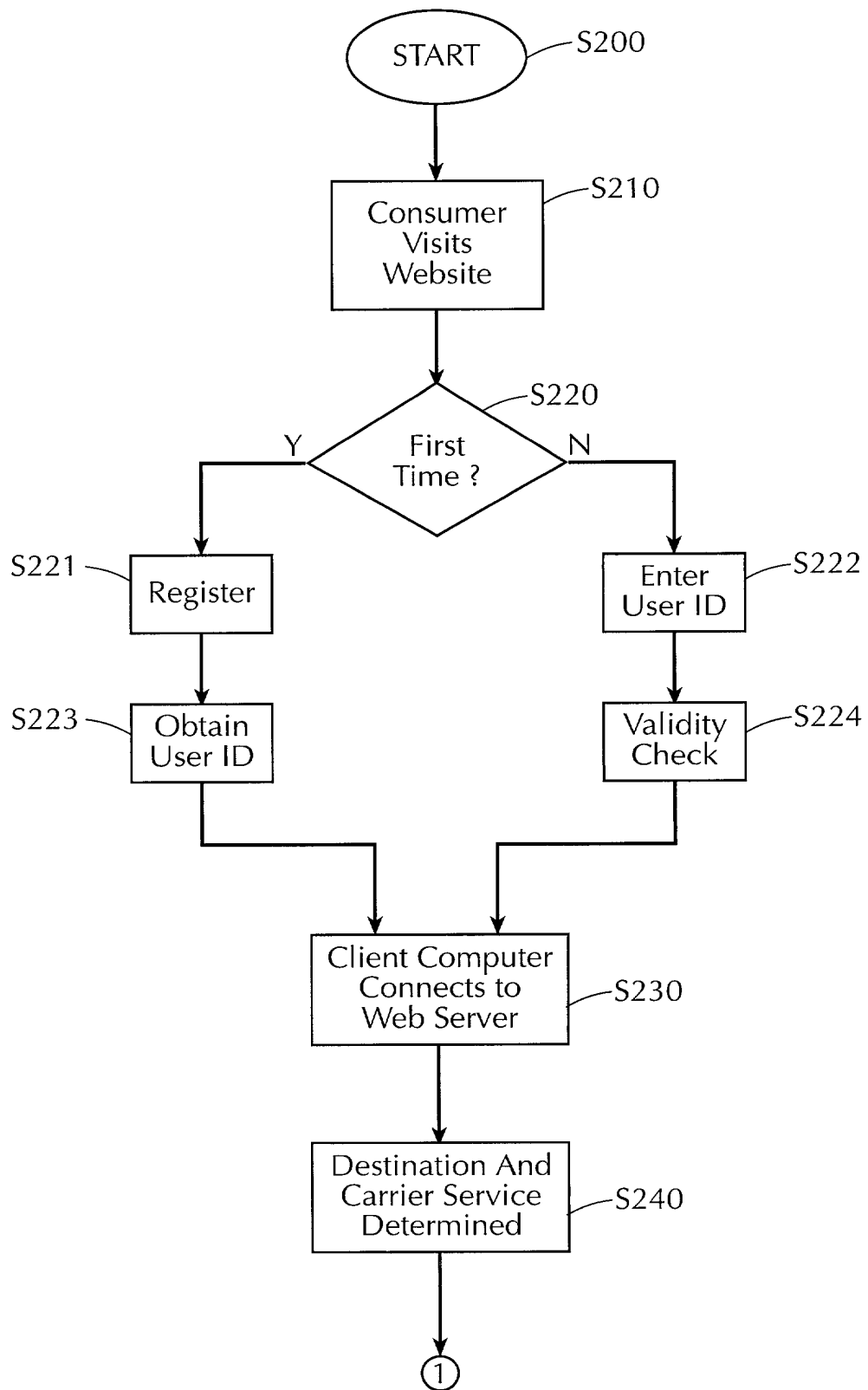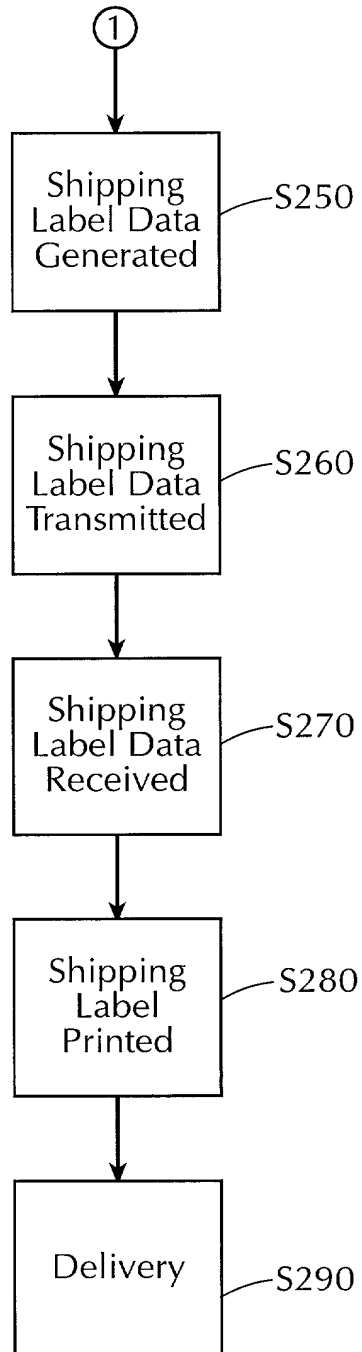
FIG. 2

START — S200

↓

Consumer
Visits
Website — S210

↓

S220 — First Time ?

Y →

S221 — Register

↓

S223 — Obtain User ID

N →

S222 — Enter User ID

↓

S224 — Validity Check

Client Computer
Connects to
Web Server — S230

↓

Destination And
Carrier Service
Determined — S240

↓

①

FIG. 2A

①

↓

Shipping
Label Data
Generated ——S250

↓

Shipping
Label Data
Transmitted ——S260

↓

Shipping
Label Data
Received ——S270

↓

Shipping
Label
Printed ——S280

↓

Delivery ——S290

FIG. 3

30

Welcome To The Acme
Product Return Program

Are you a first-time User?

31 ⟶ ◯ yes

32 ⟶ ◯ no

FIG. 4

40

Please enter the information
requested below:

Name :
Company :
Address :
eMail :
Telephone :
Facsimile :

41 ⟶ ◯ Submit

FIG. 5

50

What do you want your User ID
to be?

[   ]

What do you want your Password
to be?

[   ]

Please retype your Password

[   ]

51 —◯ Submit

FIG. 6

60

You are now registered for our For the Acme
Product Return Program. Your User ID is
JQPUBLIC

61 —◯ Continue

FIG. 7

Please enter your User ID and Password.

User ID: [   ]

Password: [   ]

71 —◯ Submit

FIG. 8

Enter the type of Product you want to return

[   ]

81 —◯ Submit

COMBINED DECLARATION AND POWER OF ATTORNEY
FOR PATENT APPLICATION
(Page 1)

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled <u>System and Methods To Effect Return of a Consumer Product</u>

_____,

the specification of which | X | is attached hereto | | was filed on _____ as United States Application No. or PCT International Application No. _____ and was amended on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR §1.56.

I hereby claim foreign priority benefits under 35 U.S.C. §119(a)-(d) or §365(b), of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application which designates at least one country other than the United States, listed below and have also identified below any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed:

| | | | (Yes/No) |
| Country | Application No. | Filed (Day/Mo./Yr.) | Priority Claimed |

NONE

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below:

| Application No. | Filed (Day/Mo./Yr.) |

NONE

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or § 365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 C.F.R. § 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

| | | Status |
| Application No. | Filed (Day/Mo./Yr.) | (Patented, Pending, Abandoned) |

NONE

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FOR PATENT APPLICATION
(Page 2)

I hereby appoint the practitioners associated with the firm and Customer Number provided below to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith, and direct that all correspondence be addressed to the address associated with that Customer Number:

FITZPATRICK, CELLA, HARPER & SCINTO
Customer Number: 05514

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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Third Inventor's signature _____

Date _____   Citizen/Subject of _____

Residence _____

Post Office Address _____

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Fourth Inventor's signature _____

Date _____   Citizen/Subject of _____

Residence _____

Post Office Address _____